



Programme

6 –10April 2025

Aix-en-Provence, France



EUROPEAN NUCLEAR SOCIETY





Sunday 6 April 2025

3.00 pm – 4.30 pm Guided City Tour

5.00 pm – 6.30 pm Welcome Reception

Monday 7 April 2025

9 am – 9.30 Welcome and Official Opening of the Conference

SMR/AMR: Global Developments, R&D Challenges and the Role of Research Reactors

9.30 am – 11 am

Global Perspectives on SMR & AMR Development - Setting the Stage

This opening session will provide a comprehensive introduction to the current development landscape of Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs).

Coffee break

11.30 am – 1 pm

Advancing SMR & AMR Development: R&D Challenges and Collaborative Pathways

Successful deployment of Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs) relies on strong collaboration between research, industry, and regulatory bodies. This session will explore key R&D challenges and stakeholder cooperation necessary to drive innovation and commercialisation.

Lunch break

2 pm – 4 pm

Innovative SMR & AMR Designs: Bridging Industry and Research

This session will showcase leading Small Modular Reactor (SMR) and Advanced Modular Reactor (AMR) projects, highlighting their technological advancements and collaboration with the R & D community. The session will provide insights into how industry and research can work together to accelerate the deployment of next-generation nuclear technologies.

4.00 pm – 4.30 pm Coffee break

4.30 pm – 6.10 pm Parallel Sessions

Parallel session I: Part I

Expertise and Synergies in fuel developments for Prototype SMR's

Advancing MSR Technology: The Copenhagen Atomics-PSI Molten Salt Experiment	Frajtag, P. (1); Streit, M. (1); Stubsgaard, A. (2); Swalwell, G. (2); Chierici, L. (2); Pautz, A. (1) 1 - Paul Scherrer Institut, Switzerland 2 - Copenhagen Atomics, Switzerland
DIRECT REPRESENTATIVE MODELS FOR DATA-DRIVEN ANALYSIS OF PB-HTR ON-LINE REFUELING-OPERATION	Xia, B. (1); Zhang, Z. (2); Sheng, Z. (1); She, D. (1) 1 - Institute of Nuclear and New Energy Technology, Tsinghua University, China 2 - Department of Engineering Physics, Tsinghua University, China

Parallel session I: Part II

Safety and Security

U.S. High Performance Reactor Conversion to Low-enriched Uranium Fuel Reactor Configuration and Model Updates	Wilson, E. (1); Mohamed, W. (1); Yoon, D. (1); Centinbas, C. F. (1); Jamison, L. (1); Mascolino, V. (1); Anderson, K. (1); Wang, G. (1); Thomas, J. (1); Sharabi, M. (1); Hebden, A. (1) 1 - Argonne National Laboratory, United States
WENRA Activities on Harmonizing the Safety of Research Reactors across Europe	Klein Meulekamp, R. (1); Niedzwiedz, K. (2) 1 - Federal Agency for Nuclear Control (FANC), Belgium 2 - Federal Office for the Safety of Nuclear Waste Management (BASE), Germany
AN INTEGRATED APPROACH TO NUCLEAR SECURITY AND SAFETY CULTURE - RESILIENCE TOWARDS EMERGING THREATS	Jensen, J. J. (1) 1 - Institute of Energy Technology, Norway

Parallel session II: Decommissioning and dismantling of research reactors and waste management

Situation and Planning for the Further Handling of Activated Beryllium from German Research Reactors	Kropf, M. (1); Kaleve, M. (1); Schmidt, M. (1) 1 - Technische Universität München, Forschungs-Neutronenquelle Heinz-Maier-Leibnitz (FRM II), Germany
Decommissioning strategy of the Iraqi Destroyed Research Reactor	Ahmed, B. (1) 1 - Ministry of Environment, Iraq
A Digital Ecosystem for Reconciling Facility Operator and Decommissioning Team Needs in Nuclear Decommissioning	Plana, R. (1); Murillo-Coba, C. (1); Roffino, B. (1); Moro, M. (1) 1 - Assystem AEOS, France



EUROPEAN RESEARCH
REACTOR CONFERENCE 2025

FIR 1 Research Reactor Dismantling and Waste Management: The Crucial Role of Modern Digital Design Tools in Achieving Success	Oinonen, V. (1) 1 - Fortum, Finland
Transition from private to state operator – transfer of license for the Halden Boiling Water Reactor in Norway	Mork-Knutsen, I. A. (1); Frogg, K. E. (1) 1 - Norwegian Radiation and Nuclear Safety Authority, Norway

Tuesday 8 April 2025

9.00 am – 10.00 am Plenary Session: Advancing nuclear medicine – Harnessing the potential of radiopharmaceuticals

10.00 am – 10.30 am Plenary Session: Student Competition

10.30 am – 11.00 am Coffee break

11.00 am – 1.00 pm Parallel Sessions

Parallel session I: Radioisotopes

Innovative Pathways for Holmium-166 Production in TRIGA Reactors	Abuzlf, H. (1); Gilad, E. (1) 1 – Ben-Gurion University, Israel
STABLE ISOTOPES SUPPLY AND EURYBIE PROJECT TO THE RESEARCH REACTORS COMMUNITY	Bigot, L. (1); Bertrand, P. (1); Lacroix, J.-N. (1); Barithel, S. (1); Vincent, J.-L. (1) 1 – Orano Chimie & Enrichement, France
ENEA TRIGA RC-1 REACTOR TO MEDICAL RADIONUCLIDES PRODUCTION WITHIN THE EU SECURE PROJECT	Lepore, L. (1); Spagnuolo, L. (1); Cozzella, L. (1); Guarcini, T. (1); Limosani, F. (1); Placidi, S. (1); Pagano, A. (2); Falconi, L. (2); Fabrizio, V. (2); Formenton, D. (2); Roberti, A. (2); Capogni, M. (3) 1 – ENEA, NUC-IRAD-CRGR, Nuclear Material Characterization Laboratory and Nuclear Waste Management, Casaccia Research Centre, Italy 2 – ENEA, NUC-IRAD-RNR, Research Nuclear Reactor Laboratory, Casaccia Research Centre, Italy 3 – ENEA, NUC-INMRI, National Institute of Ionizing Radiation Metrology, Casaccia Research Centre, Italy
REACTOR-PRODUCED MEDICAL, NUCLEAR FORENSICS/NON-PROLIFERATION, AND INDUSTRIAL ISOTOPES AND MEDICAL IMAGING	Landsberger, S. (1); Charlton, W. (1); Haas, D. (1); Lapka, J. (1); Nolting, D. (1); Tipping, T. (1); Zannoni, E. (1) 1 – University of Texas at Austin, United States
RADIONUCLIDE PRODUCTION AT A CROSSROADS: RESEARCH AND POWER REACTOR COMPETITION	Mario, N. (1); Bréchin, V. (1); Vallee, A. (1); Kolmayer, A. (1) 1 – NUCADVISOR, France
SECURING A RELIABLE SUPPLY OF REACTOR-PRODUCED ISOTOPES VIA KJRR	Lee, S.-K. (1); Lee, S. (1); Kim, J. (1); Woo, K. (1) 1 – Korea Atomic Energy Research Institute, Korea, Republic of

Parallel session II: Innovative Methods I

Validation of the AKR-2 reactor simplified model using OpenMC and Serpent: A deep analysis of the pile oscillator experiment	Gómez Rodriguez, J. J. (1); Lange, C. (1); Viebach, M. (1); Knospe, A. (1); Hurtado, A. (1); Giusti, V. (2) 1 - Technische Universität Dresden, Germany 2 - University of Pisa, Italy
A methodology for measuring the neutron fluence exposure of Zirconium-based reactor components	Shiman, O. (1); Bickel, G. (1); Roubtsov, D. (1); Chow, J. (1) 1 - Canadian Nuclear Laboratories, Canada
Development of a 3D Sn Transport Code for Reactor Core Analysis	Kim, K.-O. (1); Yoo, H. J. (1); Lee, B. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
RECENT ADVANCES IN OSCAR-5 NEUTRONIC / THERMAL-HYDRAULIC INTERFACES, AS APPLIED TO RESEARCH REACTOR BENCHMARK PROBLEMS	Prinsloo, R. (1); Khoza, S. (1); Botes, D. (1); Day, S. (2) 1 - Necsa, South Africa 2 - McMaster University, Canada
MONITORING OF THE FIRST CORE FUEL LOADING IN THE JULES HOROWITZ REACTOR	Gellenoncourt, A. (1); Blanchet, D. (1); Jacqmin, R. (2); Gall, B. (3); Chabert, L. (4) 1 - CEA/DES/IRENE/DER/SERJH/LFSC, France 2 - CEA/DES/IRENE/DER, France 3 - Université de Strasbourg, IPHC, France 4 - TechnicAtome, France
Experimental Test of a Prototype Model of an Experimental Facility for Nuclear Knowledge Development	Abdalaziz, R. O. (1); Abdalaah, O. (1); M. Alfaki, A. (1); Alsser Hussien, A. (2); Alfatih, R. (2); Muawia, A. (2); Abdalwhab, M. (2) 1 - SUDAN Atomic Energy Commission, Sudan 2 - Sudan University of Sciences and Technology, Sudan

1.00 pm – 2.00 pm Lunch break

2.00 pm – 3.00 pm Plenary Session: Poster Session

Additive Manufactured NDS/ODS Fe12Cr6Al Alloys for Nuclear Applications	Cakmak, O. (1); Cho, J.-W. (1) 1 - Pohang University of Science and Technology, Korea, Republic of
A study of inter-diffusion of Cr in HT9 cladding materials at 650°C	Kim, J.-S. (1); Oh, J. M. (1); Kim, J.-H. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
Automated Thickness Measurement Method and Device for Nuclear Fuel Plates	Durazzo, M. (1); Kobayoshi, M. (1); Urano de Carvalho, E. F. (1) 1 - Nuclear and Energy Research Institute, Brazil
„Radioactive Material in Special Form - important aspects in BAM approval procedure“	Rolle, A. (1); Wille, F. (1) 1 - Bundesanstalt für Materialforschung und -prüfung, Germany

NEUTRON DIFFRACTION STUDIES OF AUSTENITIC STAINLESS STEEL (SUPER 304H) SAMPLES AFTER A TERMOMECHANICAL LOAD	Mikula, P. (1); Farkaš, G. (1); Ryukhtin, V. (1); Pilsová, L. (2) 1 - Department of Neutron Physics, Nuclear Physics Institute CAS, Czech Republic 2 - Czech Technical University, Faculty of Mechanical Engineering, Czech Republic,
Presentation of MAIA MTR fuel performance code	Marois, G. (1); Lorenzo, D. (1) 1 - The French Atomic Energy and Alternative Energy Commission (CEA), France
History, development, and main achievements in seventeen years of the Neutron Activation Analysis technique at CNESTEN (Morocco).	Bounouira, H. (1); Amsil, H. (1); Didi, A. (1); Aarab, I. (1); Badague, A. (1); Fllaoui, A. (1) 1 - National Center of Nuclear Energy, Sciences and Technology (CNESTEN), Morocco
Development and design characteristics of research reactors in Korea	Park, C. (1); Lee, B. (1); Kim, K. (1); Park, S. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
Irradiation Behaviors of High-density Atomized U3Si2/Al Dispersion Fuel in BR2	Cho, T. W. (1); Jeong, Y. J. (1); Park, D. J. (1); Park, J. M. (1); Wight, J. (2); Acevedo, B. (2); Ann, L. (2) 1 - Korea Atomic Energy Research Institute (KAERI), Korea, Republic of 2 - Belgian Nuclear Research Centre (SCK CEN), Belgium
IMPROVED HEAT EXCHANGER MODELING FOR SAFETY ANALYSIS OF THE BR2 REACTOR CONVERSION	Lin, H.-C. (1); Garner, P. (1); Licht, J. (1); Wols, F. (2) 1 - Argonne National Laboratory, United States 2 - SCK CEN, Belgium
Fuel swelling analysis of full-length plate test of U-7Mo/Al-5Si dispersion fuel in HAMP-3	Jeong, G. Y. (1); Tahk, Y. W. (1); Jun, H. (1); Kim, H. (1); Seo, C. G. (1); Park, D. J. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
Thermal Hydraulic Analysis of a Hypothetical Complete Loss-of-Coolant Accident in a Typical Research Reactor	Ali, A. (1) 1 - Reactors Department, Nuclear Research Center, Egyptian Atomic Energy Authority, Cairo, Egypt,
Microstructural Characterization of U7Mo Dispersion Mini-Plate Specimens irradiated in HANARO	Park, D. J. (1); Cho, T. W. (1); Park, J. M. (1); Tahk, Y. W. (1); jeong, G. Y. (1); Seo, C. G. (1); Kim, H. M. (1); Jeong, Y. J. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
THE CHANGE IN THE TYPE OF IRRADIATED TELLURIUM DIOXIDE FROM NATURAL ISOTOPIC COMPOSITION TO ENRICHED IN THE TE-130 ISOTOPE BY MORE THAN 90%, AND ITS IMPACT ON THE OBTAINING OF THE LUTTIUM-177 AT THE SAME REACTOR IRRADIATION.	Biała, E. (1); Konior, M. (1); Kuczkowska, A. (1) 1 - Production Department, NCBJ OR Polatom Andrzej, Poland
Reactive spark plasma sintering of UAl2 + Al powder mixtures	Iltis, X. (1); Klošek, V. (1); Sanchez, A. (1); Tarisien, N. (1); Valance, S. (1); Lamy, S. (2); Pasturel, M. (2) 1 - CEA, DES, IRESNE, DEC, France

	2 - Univ. Rennes, CNRS, ISCR, UMR 6226, F-35042 Rennes , France
MTR Reactor Fuel Consumption Optimization Approach based on the Shuffling Strategy and operation Cycle Length	Abdalaziz, R. O. (1) 1 - SUDAN Atomic Energy Commission , Sudan
Activities at the VVR-M Research Reactor During the Pre-War and War Periods	Babenko, V. (1); Pavlovych, V. (1); Trishin, V. (1); Homych, I. (1) 1 - Institute for Nuclear Research, National Academy of Sciences of Ukraine, Kyiv, Ukraine, Ukraine
Neutron Flux Characterization in the Irradiation Channels of MTR Reactors	Abdalaziz, R. O. (1) 1 - SUDAN Atomic Energy Commission , Sudan
Special Aluminum Welding Wire Manufacturing and Parts Assembly for the renewal and upgrade of Neutron Reactor Facility FRM2 Munich	Ucsnik, S. (1); Schnall, M. (1); Pixner, F. (1); Birgmann, A. (1) 1 - LKR Light Metals Competence Centeer Ranshofen, Austria
FRM-II neutronics modelling with Serpent and OpenMC	Travleev, A. (1) 1 - Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany
DEVELOPMENT OF RADIOISOTOPE PRODUCTION HOT CELL FOR KIJANG RESEARCH REACTOR	Woo, K. (1); Lee, S.-K. (1); Hong, S. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
Control Rod Worth Measurement With Improved Neutron Source Multiplication Method	Li, K. (1); Peng, D. (1); Hong, J. (1); Wu, X. (1); Li, Y. (1) 1 - China Institute of Atomic Energy, China
Ensuring Safety and Efficiency in Research Reactor Decommissioning through Project Management	Oinonen, V. (1); Kaisanlahti, M. (1) 1 - Fortum, Finland
Repairing Instrumented TRIGA Fuel at the Jožef Stefan Institute	Jazbec, A. (1); Rosman, M. (1); Verdir, A. (1); Rupnik, S. (1) 1 - Jožef Stefan institute, Slovenia
FAILURE MECHANISM FOR FUEL PLATES DURING NORMAL OPERATION	Bravo, I. G. (1); Menbribe, M. E. (1) 1 - INVAP, Argentina
Experimental Investigation of Neutron Flux Optimization for Enhancing Molybdenum-99 Specific Activity in a Critical Facility	Sairanbayev, D. (1); Shaimerdenov, A. (1); Aitkulov, M. (1); Gizatulin, S. (1); Gurin, A. (1); Chakrova, Y. (1); Bugybay, Z. (1) 1 - Institute of Nuclear Physics, Kazakhstan
Experimental Works for Kijang Research Reactor	Kim, S. H. (1); Lee, D. (1); Lee, K. H. (1); Ryu, J. (1); Kim, M. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
Tests for manufacturing fuel with dispersed uranium gradient – HFIR fuel example	Stepnik, B. (1); Clemencon, J. (1); Rontard, C. (1) 1 - Framatome, France
Spent Fuel Monitoring Using Antineutrino Detection in Reactor Experiments	El Atmani, I. (1) 1 - Laboratory of High Energy Physics & Condensed Matter, Faculty of Sciences Ain-Chock, Hassan II University of Casablanca, Morocco

3.00 pm – 4.20 pm Parallel Sessions

Parallel session I: New Research Reactor Projects

Early stakeholder engagement for a possible new multipurpose research reactor for Canada	Yamani, Z. (1); Walters, L. (1); Siddiqui, A. (1); Huynh, K. (2) 1 - Canadian Nuclear Laboratories (CNL), Canada 2 - Atomic Energy of Canada Ltd (AECL), Canada
Feasibility of New Research Reactor Project in Kenya	Onyoni, D. (1) 1 - Nuclear Power and Energy Agency, Kenya
Transition of operations from HFR to PALLAS	Ruiterman, R. (1) 1 - NRG PALLAS, Netherlands
SUPPORTING COUNTRIES IMPLEMENTING NEW RESEARCH REACTOR PROJECTS learnt from four projects with three different reactor vendors over the past decade	Girard, J.-P. (1); Vallee, A. (1); Mario, N. (1); Madureira, S. (1) 1 - NucAdvisor S.A., France

Parallel session II: Operation & maintenance and ageing management

Major Upgrades to the OPAL Research Reactor	Vittorio, D. (1) 1 - Australian Nuclear Science and Technology Organisation, Australia
A new maintenance management system for the HOR reactor	Tober, J. (1) 1 - TU Delft Reactor Institute, Netherlands
Performance and Lifetime Management of HANARO Research Reactor with PMT	Jung, H. S. (1); Park, S. J. (1); Choi, Y. S. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
Aluminum Manufacturing Projects for the Neutron Reactor Facility at FRM II / TU Munich	Kunschert, G. (1); Pichlmaier, A. (2) 1 - Light Metals Technologies Ranshofen - Austrian Institute of Technology, Austria 2 - Technical University of Munich - Research Neutron Source Heinz Maier-Leibnitz (FRM II), Germany

4.20 pm – 4.40 pm Coffee break

4.40pm – 6.00 pm Parallel Sessions

Parallel session I: Fuel Cycle I

CRITICAL CHARACTERISTICS FOR MIT REACTOR LEU FUEL FABRICATION	Hu, L. (1); Mascolino, V. (2); Yang, S. (2); Stillman, J. (2); Anderson, K. (2); Wilson, E. (2) 1 - MIT Nuclear Reactor Laboratory, United States 2 - Argonne National Laboratory, Nuclear Science and Engineering Division, United States
Validation of Research Reactor Analysis Codes with Fuel Testing Data Including AFIP-7 and the ADDER Software	Anderson, K. (1); Wilson, E. (1); Aliberti, G. (1); Mascolino, V. (1); Stillman, J. (1); Mohamed, W. (1); Nielsen, J. (2)

	1 - Argonne National Laboratory, United States 2 - Idaho National Laboratory, United States
HIGH FLUX ISOTOPE REACTOR LOW-ENRICHED URANIUM CONVERSION PROGRESS	Sizemore, C. (1); Bae, J. W. (2); Burg, K. (1); Chandler, D. (2); Hartanto, D. (2); Jain, P. (2); Nash, J. (1); Ross, M. (2); Robert, Y. (2) 1 - Oak Ridge National Laboratory - Research Reactors Division, United States 2 - Oak Ridge National Laboratory - Nuclear Energy and Fuel Cycle Division, United States
EU-CONVERSION: Supplying the European Research Reactors with Safe Low-Enriched Uranium Fuels for Their Conversion and Long-Term Operation to Secure the Supply of Medical Radioisotopes	Baumeister, B. (1); Reiter, C. (1); Medyk, L. (2); Buniazet, Z. (2); Rontard, C. (2); Stepnik, B. (2); Leenaers, A. (3); Holmström, S. (3); Wight, J. (3); Romanello, V. (4); Huet, F. (5); Federici, E. (6); Valance, S. (6) 1 - Technische Universität München, Germany 2 - Framatome, France 3 - Studiecentrum voor Kernenergie / Centre D'Etude de L'Energie Nucleaire, Belgium 4 - Centrum Vyzkumu Rez SRO, Czech Republic 5 - Societe Technique pour L'Energie Atomique TECHNICATOME SA, France 6 - Commissariat à l'énergie atomique et aux énergies alternatives, France
ILL Bright Futures	Estrade, J. (1) 1 - Institut Laue Langevin, France

Parallel session II: Utilisation of Research Reactors

Commissioning and performance of the cold neutron source at the HOR	Hassink, G. (1); Kaaijk, C. (1) 1 - TU Delft Reactor Institute, Netherlands
Evaluation of the KATANA water activation loop characteristics at the JSI TRIGA reactor: Activity calculation of ¹⁶ N, ¹⁷ N and ¹⁹ O	Kotnik, D. (1); Peric, J. (1); Snoj, L. (1); Lengar, I. (1) 1 - Jožef Stefan Institute, Reactor Physics Department, Jamova cesta 39, 1000 Ljubljana, Slovenia
Towards the commissioning of a cold neutron source at the TU Delft Reactor Institute	Van wijk, N. (1); Hassink, G. (1); Kaaijk, C. (1) 1 - TU Delft Reactor Institute, Netherlands
Research capabilities of the PALLAS reactor	Knol, S. (1); Boomstra, D. (1); Grismanovs, V. (1); Beck, R. (1); Klaassen, F. (1) 1 - NRG PALLAS, Netherlands
THE WWR-K REACTOR CAPABILITIES FOR FUEL TESTING	Shaimerdenov, A. (1); Gizatulin, S. (1); Silnyagin, P. (1); Akhanov, A. (1); Sairanbayev, D. (1); Aitkulov, M. (1); Kislitsin, S. (1) 1 - The Institute of Nuclear Physics, Kazakhstan

7.30 pm – 11.00 pm Conference Dinner

Wednesday 9 April 2025

9.00 am – 10.20 am: Parallel Sessions

Parallel session I: Fuel Cycle II

ASSESSMENT OF AN ALTERNATIVE CONTROLLED FUEL ASSEMBLY DESIGN FOR THE LVR-15 REACTOR WITHIN THE EU-CONVERSION PROJECT	Romanello, V. (1); Dambrosio, A. (1); Hrehor, M. (2); Paglini, A. (2); Boyard, M. (3); Huet, F. (3) 1 - Reserach Centre Rez (CVR), Czech Republic 2 - National Radiation Protection Institute (SURO), Czech Republic 3 - TechnicAtome (TA), France
Prefeasibility study on the use of U3Si fuel for TRIGA reactor	Lee, B. (1); Yoo, H. J. (1); Kim, K.-O. (1) 1 - KAERI, Korea, Republic of
Nuclear Nonproliferation via HEU Minimization: Progress and Challenges	Kuperman, A. (1) 1 - University of Texas at Austin, Nuclear Proliferation Prevention Project, United States
Overview of Technical Studies on the Low-Enrichment Conversion at UTR-KINKI	Tabuchi, M. (1); Wakabayashi, G. (1); Sugiura, N. (1); Shiga, H. (1); Hohara, S.-Y. (1); Sakon, A. (1); Yamanishi, H. (1); Pyeon, C. H. (2); Stratton, C. (3); Morman, J. (3); Olson, A. (3); Kalimullah, M. (3); Lell, R. (3); Heltemes, T. (3) 1 - Kindai University, Japan 2 - Kyoto University, Japan 3 - Argonne National Laboratory, United States
STUDY OF ALUMINIUM OXIDATION MECHANISM OF MTR FUEL PLATES IN REACTOR CONDITIONS	Valdez Tordoya, D. (1); Haddad, R. (1) 1 - Comisión Nacional de Energía Atómica, Argentina

Parallel session II: Utilisation of Research Reactors II

McMaster University: Canada's Nuclear University	Cappon, D. (1); Stephenson, K. (1); Preston, J. (1) 1 - McMaster University, Canada
HARNESSING NEUTRON TRANSMUTATION DOPING OF SILICON FOR CLEAN ENERGY AND INNOVATION	Vargas, E. (1); Ridikas, D. (1); Semkova, V. (1); Hutanu, V. (2); Nishizawa, S.-I. (3) 1 - INTERNATIONAL ATOMIC ENERGY AGENCY, Austria 2 - TECHNICAL UNIVERSITY OF MUNICH, Germany 3 - KYUSHU UNIVERSITY, Japan
Axial profile of the nuclear heating rate in the MIT research reactor using a stainless steel CALORRE differential calorimeter	Volte, A. (1); Kohse, G. (2); Carpenter, D. (2); Ostrovsky, Y. (2); Ames, M. (2); Hauptman, S. (2); Lyoussi, A. (3); Carette, M. (1); Reynard-Carette, C. (1) 1 - Aix Marseille Univ, Université de Toulon, CNRS, IM2NP, France 2 - Massachusetts Institute of Technology, Nuclear Reactor Laboratory, United States 3 - CEA/DES/IRENE/DER, Section of Experimental Physics, Safety Tests and Instrumentation, France

A UNIQUE OUTREACH PROGRAM FOR UTILIZATION OF RESEARCH REACTORS	Landsberger, S. (1); Charlton, W. (1) 1 - University of Texas at Austin, United States
New experiments for education and training in ENEEP	Lüley, J. (1); Radulović, V. (2); Vrban, B. (3); Matoušková, J. (4); Salvini, A. (5) 1 - European Nuclear Experimental Educational Platform, Slovakia 2 - Jožef Stefan Institute, Slovenia 3 - Slovak University of Technology in Bratislava, Slovakia 4 - Czech Technical University, Czech Republic 5 - University of Pavia, Italy

10.20 am – 10.40 am Coffee break

10.40 am – 12.20 pm Parallel Sessions

Parallel session I: Innovative Methods II

Critical Heat Flux prediction using Bidirectional Gated recurrent units (Bi-GRU)	Djeddou, M. (1); Al Dallal, J. (2); A. Hameed, I. (3) 1 - Oum El Bouaghi University, Algeria 2 - Gulf University for Science and Technology, Kuwait 3 - Norwegian University of Science and Technology, Norway
Limiting false alarms of environmental radiation monitors using machine learning	Breitkreutz, H. (1); Jagfeld, C. (1) 1 - Scienta Envinet, Germany
TMC ANALYSIS FOR OPAL REACTOR CORE USING HIGHLY DETAILED POWER PROFILES FROM A N-TH COUPLING	Ferraro, D. (1); Ferrari, I. (1); Hergenreder, D. (1) 1 - INVAP, Argentina
Thermal-Hydraulic Study on the Effect of Innovative Mixing Vanes in a 3×3 PWR Rod Bundle Using TR-PIV	Szegedi-Csinády, C. (1); Imre Orosz, G. (1) 1 - Budapest University of Technology and Economics - Faculty of Natural Sciences - Institute of Nuclear Techniques, Hungary
FissionIST: A hardware-based research reactor simulator	Marques, J. G. (1); Cabral, L. M. (1); Ferreira, E. D. (1); Felizardo, M. (1); Lima, P. (1); Lourenço, A. (1) 1 - Centro de Ciências e Tecnologias Nucleares, Instituto Superior Técnico, Portugal

Parallel session II: Research reactor operation & maintenance and ageing management II

Research on Materials Ageing and Structural Integrity of Research Reactors (Magic-RR)	Kolluri, M. (1); Tanguy, B. (2); Szenthe, I. (3); Van Dommelen, H. (4); Gonzalez-Garcia, Y. (5); Radiguet, B. (6); Bagot, P. (7); London, A. (8); Bach, M. (9); Mostert, J. (10) 1 - NRG PALLAS, Netherlands 2 - CEA, France 3 - HUN-REN-CER, Hungary 4 - Eindhoven University of Technology, Netherlands 5 - TU Delft, Netherlands 6 - University of Rouen, France 7 - University of Oxford, United kingdom 8 - UKAEA, United kingdom 9 - CNL, Canada 10 - NECSA, Netherlands
Specification, simulation and validation of response times for digital neutron flux measurement systems	Güldner, I. (1); Bröcker, D. (1); Freund, K. (1) 1 - Mirion Technologies (MGPI H&B) GmbH, Germany
SAFARI-1 Research Reactor Ageing Management and Continued Safe Operation	Malaka, S. (1) 1 - Necsa-SAFARI-1, South Africa
FRM II: Update on the status and outlook	Pichlmaier, A. (1); Schätzlein, R. (1); Jeschke, F. (1) 1 - Technical University of Munich, FRM II, Germany
ENEA TRIGA RC-1 Ageing Management Program	Falconi, L. (1); Fabrizio, V. (1); Formenton, D. (1); Roberti, A. (1); Lammardo, M. (1); Lepore, L. (2); Tati, A. (3) 1 - ENEA, NUC-IRAD-RNR, Research Nuclear Reactor Laboratory, Casaccia Research Centre, Italy 2 - ENEA, NUC-IRAD-CRGR, Nuclear Material Characterization Laboratory and Nuclear Waste Management, Casaccia Research Centre, Italy 3 - ENEA, SSPT-PROMASS, Sustainable Materials Division, Casaccia Research Centre, Italy

12.20 pm – 1.00 pm Lunch break

1.00 pm – 2.20 pm: Parallel Sessions

Parallel session I: Innovative Methods III

CHARACTERIZATION OF HEAT TRANSFER AND FRICTION COEFFICIENTS IN A CLOSED LOOP THERMOSYPHON FLOW	Saban, D. (1); Weiss, Y. (1); Aharon, J. (2); Koyfman, A. (2); Gaillot, S. (3); Lo pinto, E. (3); Katz, M. (2) 1 - Ben-Gurion University, Israel 2 - NRCN, Israel 3 - CEA, DES, IRESNE, Nuclear Technology Department, France
High Flux Isotope Reactor Conversion Support - Modified Thermal Conductivity Measurement Method	Nash, J. (1); Wang, H. (1); Muth, T. (1); Sizemore, C. (1) 1 - Oak Ridge National Laboratory, United States
Continued benchmarking of fuel performance codes PLEIADES/MAIA and DART	Lorenzo, D. (1); Marois, G. (1); valance, S. (1); Ye, B. (2); Shu, S. (2); Yacout, A. (2); Leenaers, A. (3); Wight, J. (3) 1 - CEA, France 2 - Argonne National Laboratory, United States 3 - SCK CEN, Belgium
STRUCTURAL INTEGRITY ASSESSMENT OF MTR PLATE-TYPE FUEL ASSEMBLIES	Bergero, J. H. (1); Bravo, I. G. (1); De Elias, J. (1) 1 - INVAP, Argentina

Parallel session II: Safety and Security

EF2/EF3 TORNADOES IMPACT ON JHR HVAC SYSTEMS	Gal, R. (1); Costantini, F. (1); Chabert, L. (1) 1 - TECHNICATOME, France
Fluidic Vortex Diodes: A challenge to replace flap valves	Carlevaris, R. (1); Petrini, T. (1); Franzé Stasevicius, B. (1); Schalayeff, A. (1); Doval, A. (1) 1 - INVAP, Argentina
MTR fuel failure mode and safety criteria discussion in the light of available experimental data	Rossaert, B. (1); Wight, J. (1); Bergeron, A. (2); Light, J. (2) 1 - SCK CEN, Belgium 2 - ANL, United States
SECOND PERIODIC SAFETY REVIEW OF THE FRM II	Geupel, S. (1); Jeschke, F. (1); Pichlmaier, A. (1); Schätzlein, R. (1) 1 - Technical University of Munich, Research Neutron Source FRM II, Germany

2.20 pm – 2.40 pm Coffee break

2.40 pm – 3.00 pm Parallel Sessions

Parallel session I: Fuel Cycle

TREATMENT AND CONDITIONING OPTIONS FOR RESEARCH REACTOR SPENT FISSILE MATERIALS AND A METHODOLOGICAL APPROACH TO MANAGEMENT OF THESE MATERIALS	Dunn, K. (1); Chakrov, P. (1); Robbins, R. (1) 1 - International Atomic Energy Agency, Austria
Measuring Thermal Conductivity of In-Pile Irradiated Dispersion Fuel Particles and Interaction Layers Using the Suspended-Bridge Method	Shu, S. (1); Miao, Y. (1); Ye, B. (1); Mouche, P. (1); Mo, K. (1); Jamison, L. (1); Yacout, A. M. (1); Salvato, D. (2); Hanson, W. (2); Robinson, A. (2); Howard, C. (2) 1 - Argonne National Laboratory, United States 2 - Idaho National Laboratory, United States
UMo monolithic plates manufacturing for FUTURE MONO-1 irradiation campaign	Buniazet, Z. (1); Stepnik, B. (1); Monier, L. (1); Merle, J. (1); Rontard, C. (1); Baumeister, B. (2); Schwarz, C. (2); Chemnitz, T. (2); Pichlmaier, A. (2) 1 - Framatome, France 2 - TUM - FRMII, Germany
Manufacturing of LEU COBRA Lead Test Assemblies to be irradiated inside BR2 Reactor	Sabardeil, A. (1); Merle, J. (1); Allenou, J. (1); Stepnik, B. (1) 1 - Framatome - CERCA, France
CASE STUDY ON BURNUP FOR A DISPERSION FUEL IRRADIATION EXPERIMENT: BURNUP FROM EXPERIMENT DESIGN TO MEASURED OUTCOMES	Holmstrom, S. (1); Sikik, E. (1); Hernandez solis, A. (1); Leenaers, A. (1); Puig, F. (2); Wight, J. (1) 1 - SCK CEN, Belgium 2 - ANL, United States

Parallel session II: Research reactor operation & maintenance and ageing management II

Operation and Maintenance of Research Reactors – Benefits of a Long-Term Operator-Supplier Partnership	Sikora, J. (1); Reisner, L. (1); Matoušek, J. (1) 1 - dataPartner s.r.o., Czech Republic
CONDITION MONITORING PROGRAMME: A STRATEGY FOR AGEING MANAGEMENT OF RESEARCH REACTORS	Piccolo, A. (1); Hasa, L. (1); Davis, L. (1) 1 - Nuclear Research and Consultancy Group, Netherlands
Dose rate assessment for a planned replacement of a gold seal during the refurbishment works at FRM II	Li, X. (1); Wiegner, N. (1); Jüttner, P. (1); Jeschke, F. (1); Hutanu, V. (1) 1 - FRM II, Technical University of Munich, Germany
HFR – AGEING MANAGEMENT PROGRAM: OF CRITICAL COMPONENTS	Hasa, L. (1); Visagie, H. (1); Davis, L. (1) 1 - NRG - Nuclear Research and Consultancy Group, Netherlands
Jules Horowitz Reactor (JHR): on the way to operation	Fardeau, A. (1); Pillot, F. (1); Emond, D. (1) 1 - CEA, France

3.00 pm – 3.30 pm Closing Session



Thursday 10 April 2025

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